

FIG. 1

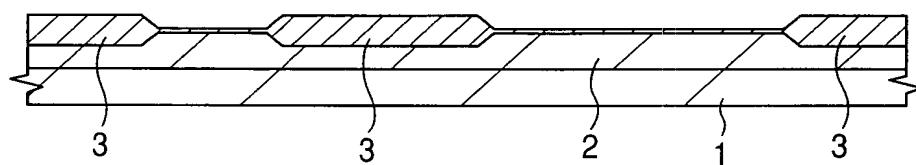


FIG. 2

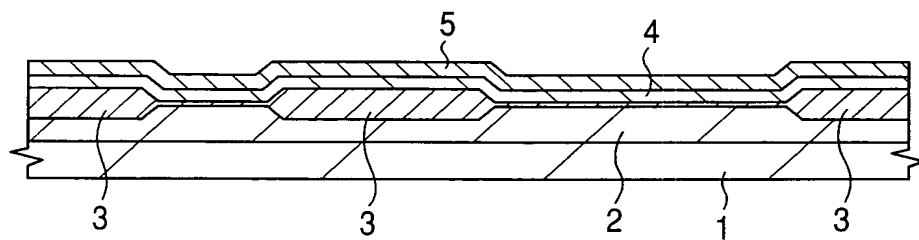


FIG. 3

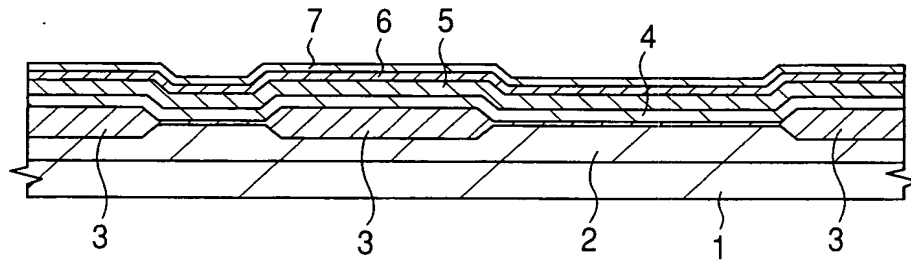


FIG. 4

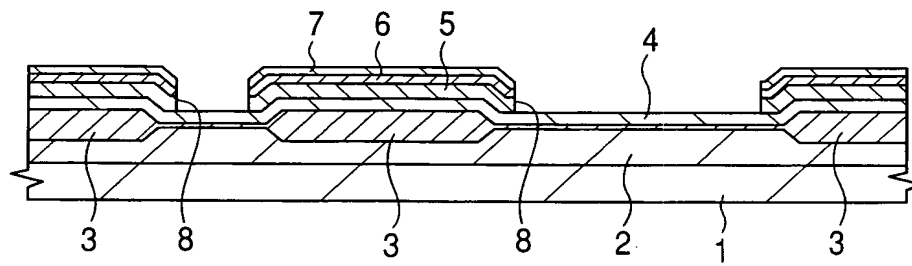


FIG. 5

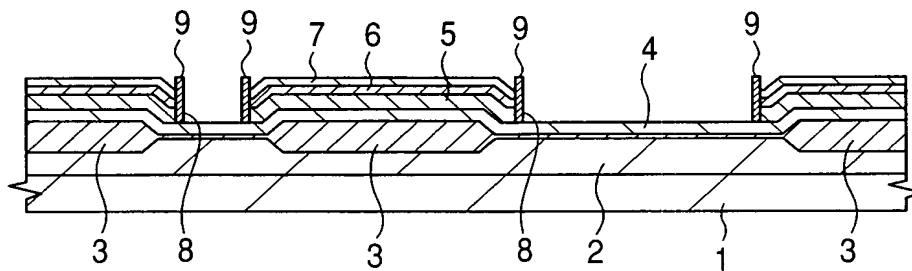
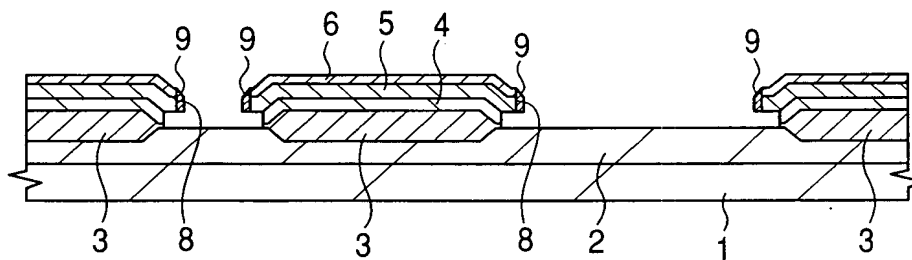


FIG. 6



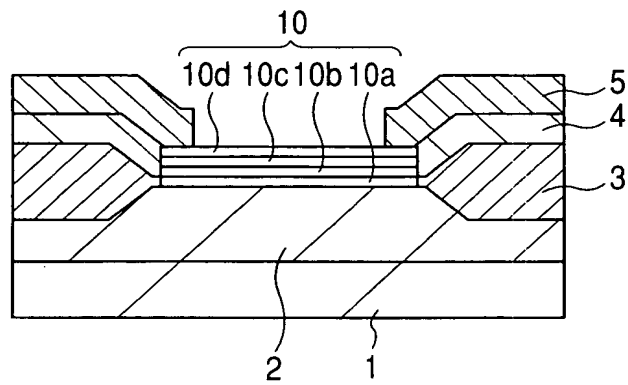


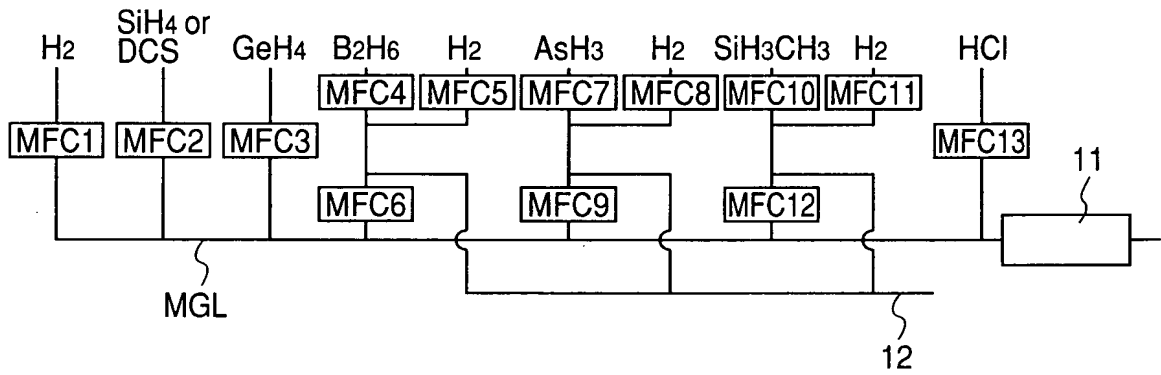
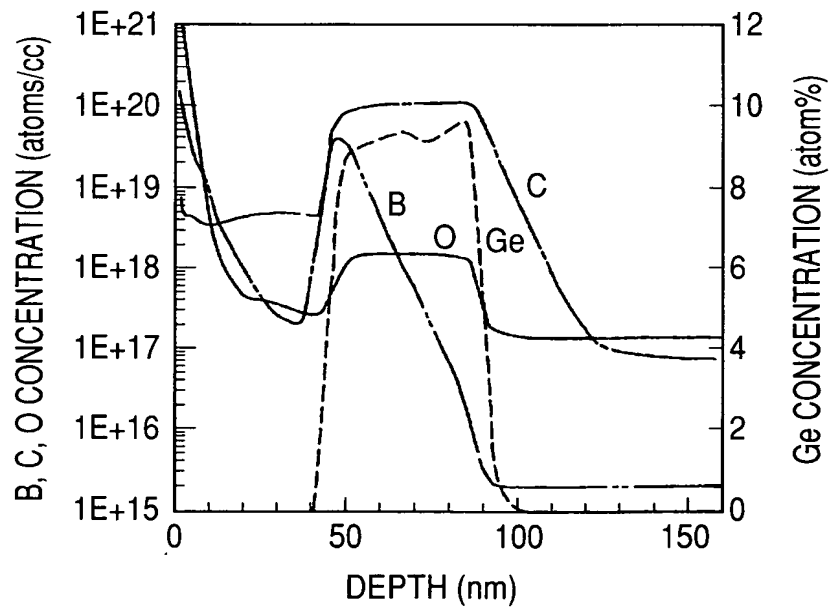
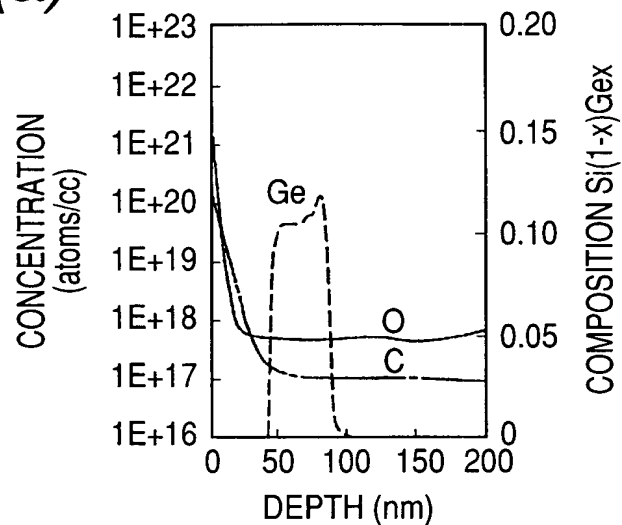
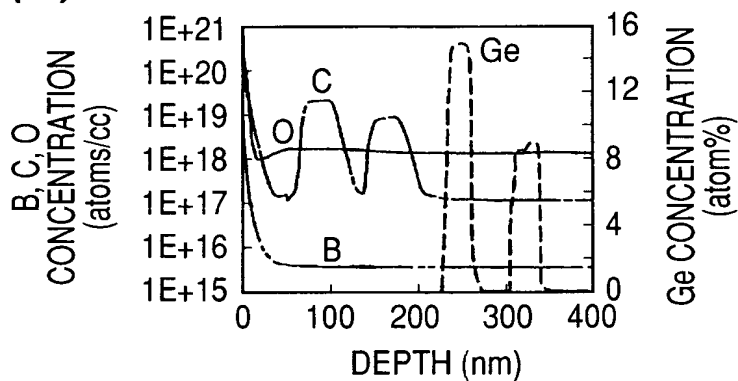
FIG. 9**FIG. 10**

FIG. 11(a)*FIG. 11(b)**FIG. 12*

SiH ₃ CH ₃ CONCENTRATION (%)	OXYGEN-BASED IMPURITY CONCENTRATION (ppm) (THEORETICAL VALUE)	OXYGEN-BASED IMPURITY CONCENTRATION (ppm) (MAKER GUARANTEED VALUE)
100	10	10
10	1	10
5	0.5	10
1	0.1	10
0.1	0.01	10

FIG. 13

	Carbon DN	SCR (sccm)	DIL (sccm)	INJ (sccm)	Conc. (%)	IMPURITY CONCENTRATION (ppm)		DILUTION EFFECT	COMPARISON OF OXYGEN CONCENTRATION WITH RESPECT TO Conc.0.1% PRODUCT
						BEFORE DILUTION	AFTER DILUTION		
(a)	0.060	50	450	60	1	0.1	0.010	0.100	1.0
	0.060	10	490	300	1	0.1	0.002	0.020	0.2
	0.060	10	990	600	1	0.1	0.001	0.010	0.1
(b)	0.060	10	990	60	10	1	0.010	0.010	1.0
	0.060	10	4990	300	10	1	0.002	0.002	0.2
	0.060	10	9990	600	10	1	0.001	0.001	0.1
(c)	0.060	10	490	60	5	0.5	0.010	0.020	1.0
	0.060	10	2490	300	5	0.5	0.002	0.004	0.2
	0.060	10	4990	600	5	0.5	0.001	0.002	0.1
(d)	0.060	60	-	-	0.1	0.01	-	-	-

FIG. 14(a)

Carbon DN	SCR (sccm)	DIL (sccm)	INJ (sccm)	Conc. (%)	IMPURITY CONCENTRATION (ppm)		COMPARISON OF OXYGEN CONCENTRATION WITH RESPECT TO Conc.0.1% PRODUCT	COMPARISON OF SiH ₃ CH ₃ CONSUMPTION QUANTITY (FLOW RATE RATIO) WITH RESPECT TO Conc.0.1% PRODUCT
					BEFORE DILUTION	AFTER DILUTION		
0.060	10	490	300	1	0.1	0.002	0.2	0.167 (1/6)
0.060	10	4990	300	10	1	0.002	0.2	0.167 (1/6)
0.060	10	2490	300	5	0.5	0.002	0.2	0.167 (1/6)
0.060	60	-	-	0.1	0.01	-	-	-

FIG. 14(b)

Carbon DN	SCR (sccm)	DIL (sccm)	INJ (sccm)	Conc. (%)	IMPURITY CONCENTRATION (ppm)		COMPARISON OF OXYGEN CONCENTRATION WITH RESPECT TO Conc.0.1% PRODUCT	COMPARISON OF COST PERFORMANCE WITH RESPECT TO Conc.0.1% PRODUCT
					BEFORE DILUTION	AFTER DILUTION		
0.060	10	490	300	1	0.1	0.002	0.2	0.28 (APPROXIMATELY 30%)
0.060	10	4990	300	10	1	0.002	0.2	0.39 (APPROXIMATELY 40%)
0.060	10	2490	300	5	0.5	0.002	0.2	0.49 (APPROXIMATELY 50%)
0.060	60	-	-	0.1	0.01	-	-	-

FIG. 14(c)

gas	COST COMPARISON (COST RATIO) WITH RESPECT TO Conc.0.1% PRODUCT
Conc.1%SiH ₃ CH ₃ +H ₂	1.7
Conc.5%SiH ₃ CH ₃ +H ₂	2.4
Conc.10%SiH ₃ CH ₃ +H ₂	2.9

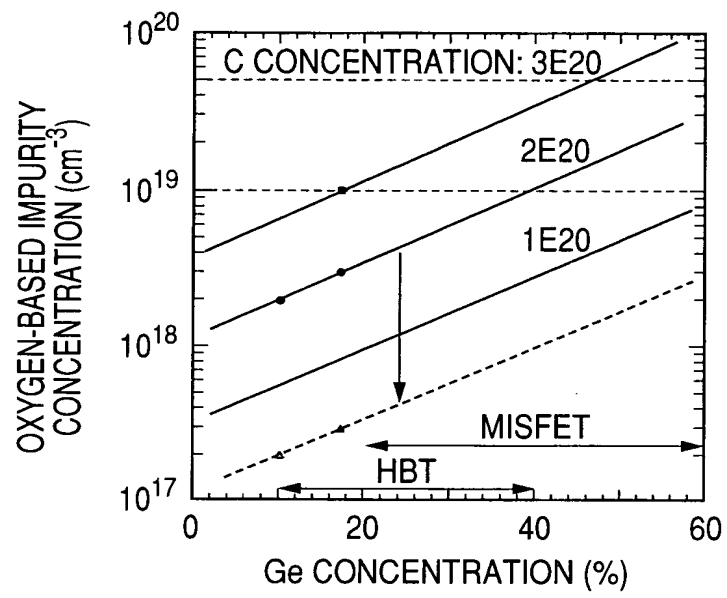
FIG. 15

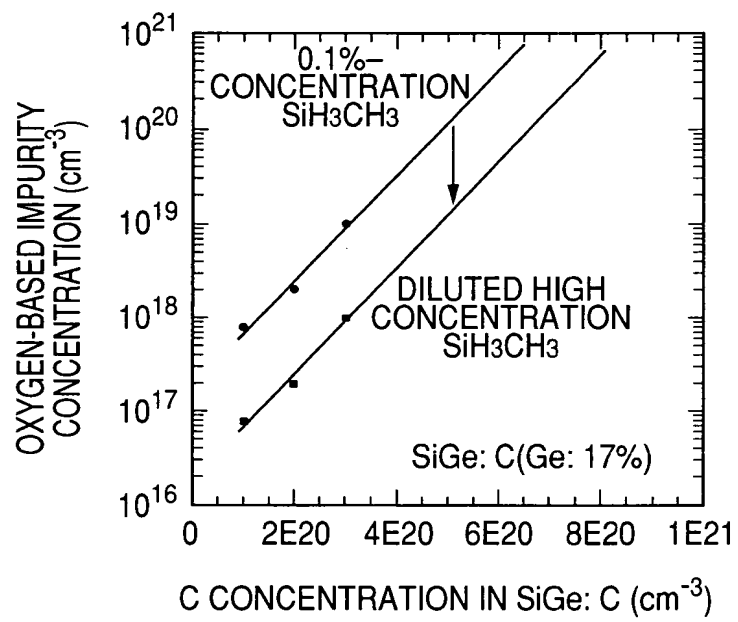
FIG. 16

FIG. 17

	i-SiGe:C	p ⁺ -SiGe:C	p ⁻ -SiGe:C	cap-Si
Duration(sec)	120	30	60	90
MFC1	20000	20000	20000	20000
MFC2(DCS)	100	100	100	100
MFC3	50	50	50	—
MFC4	—	480	150	150
MFC5	—	1000	1000	1000
MFC6	—	600	200	200
MFC7	—	—	—	—
MFC8	—	—	—	—
MFC9	—	—	—	—
MFC10	10	10	10	—
MFC11	490	490	490	—
MFC12	300	300	300	—
MFC13	10	10	10	6

FIG. 18

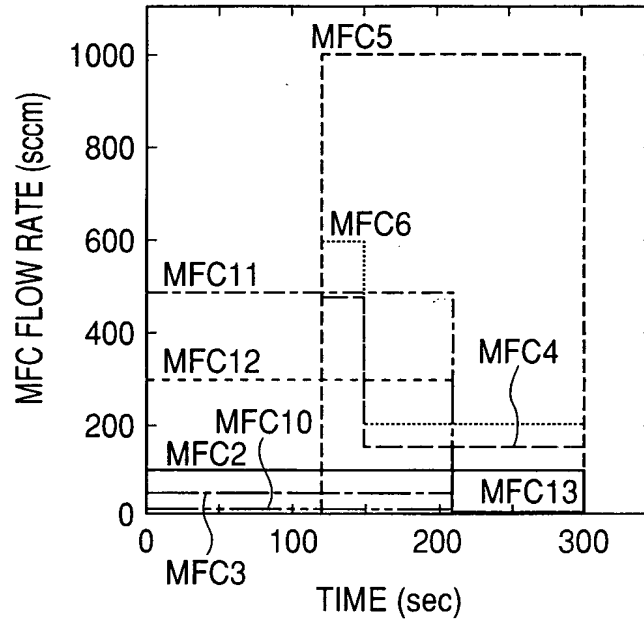


FIG. 19

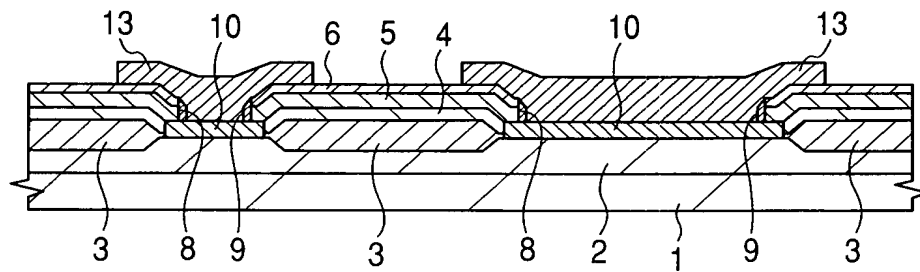


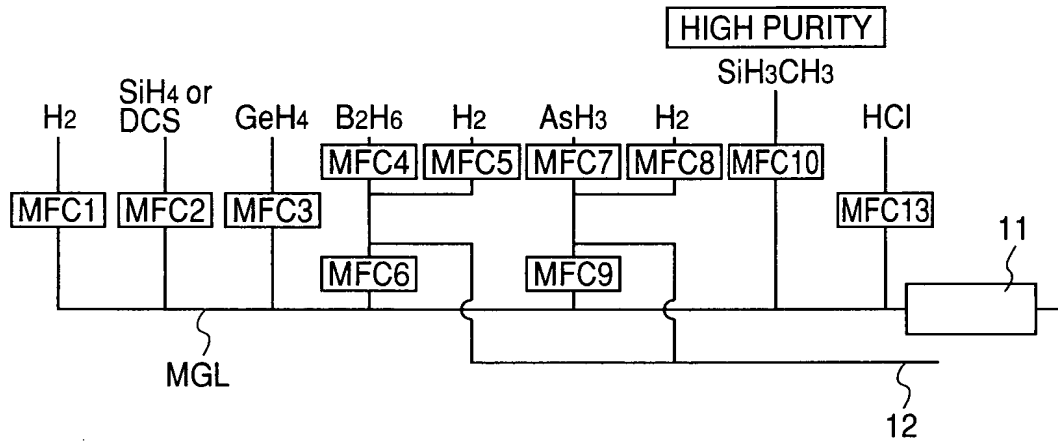
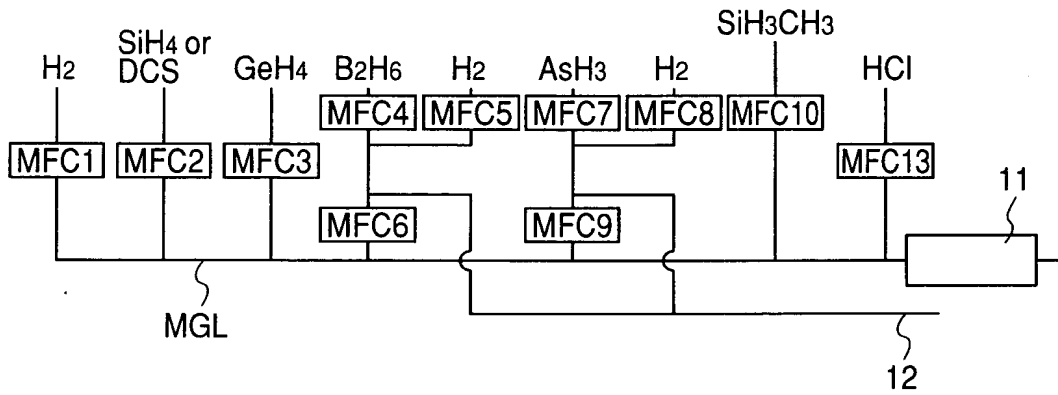
FIG. 20(a)*FIG. 20(b)*

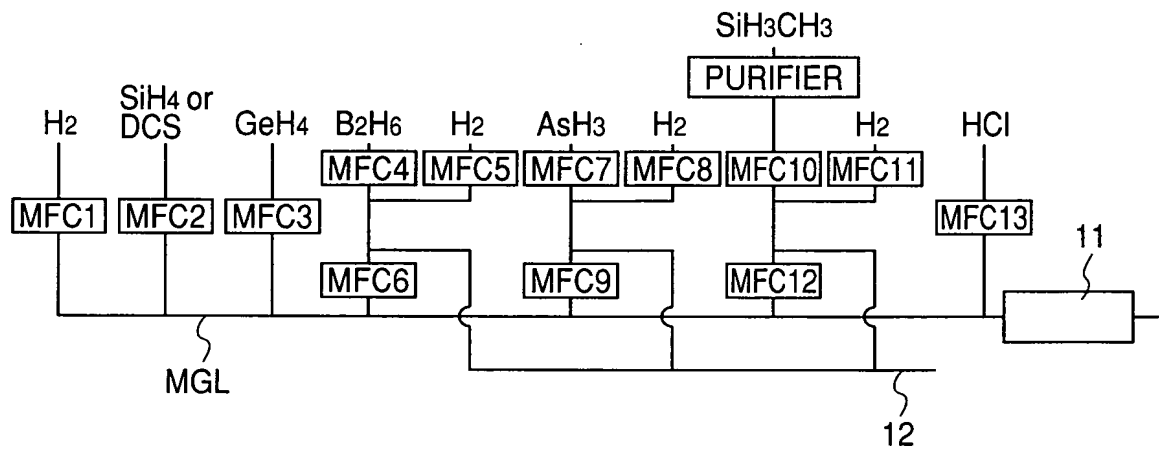
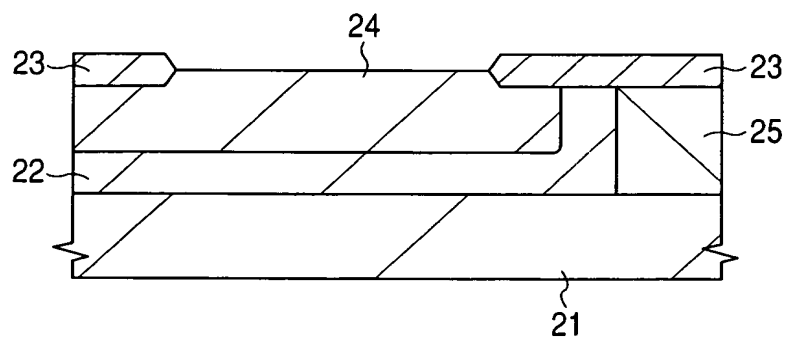
FIG. 21*FIG. 22*

FIG. 23

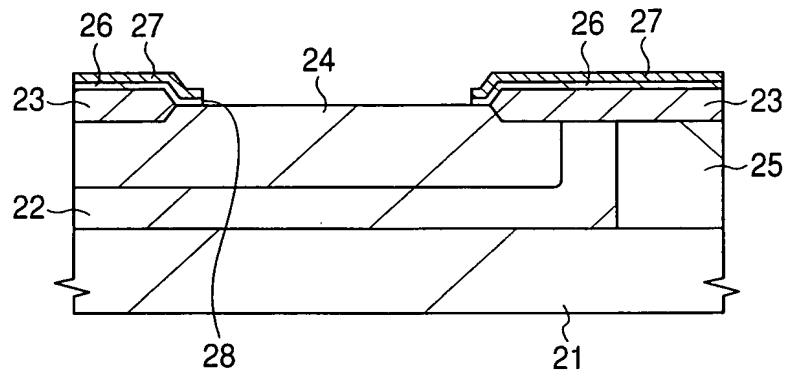


FIG. 24

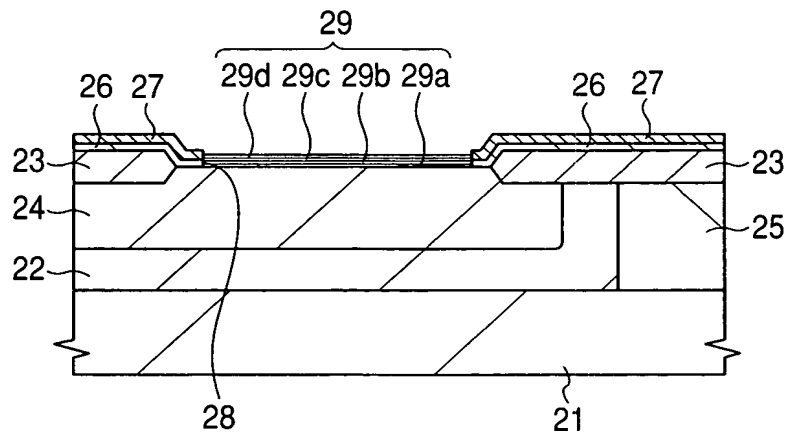


FIG. 25

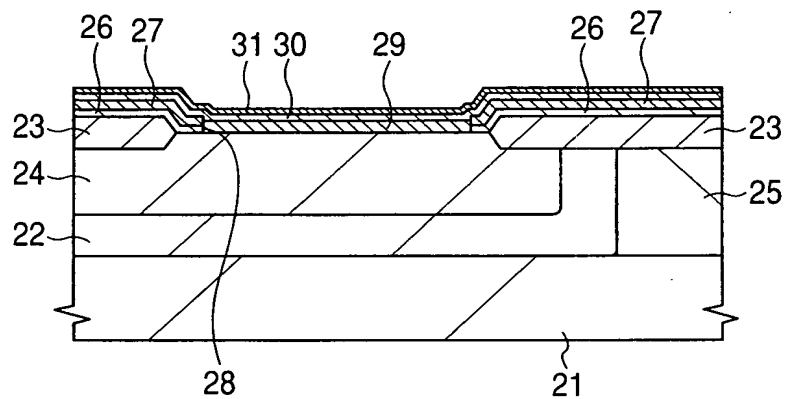


FIG. 26

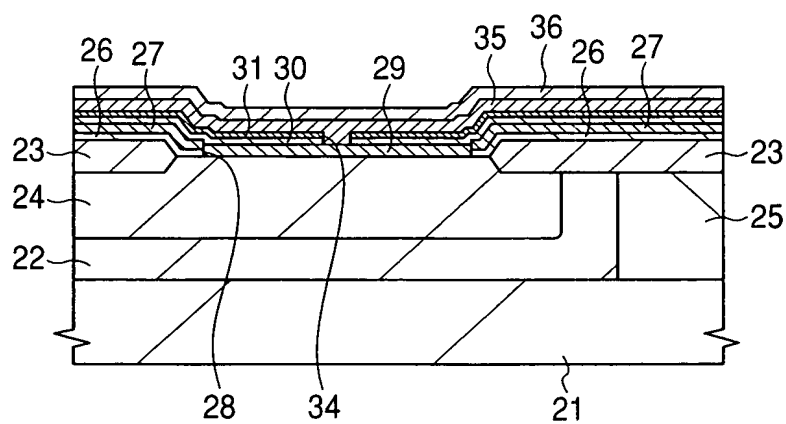


FIG. 27

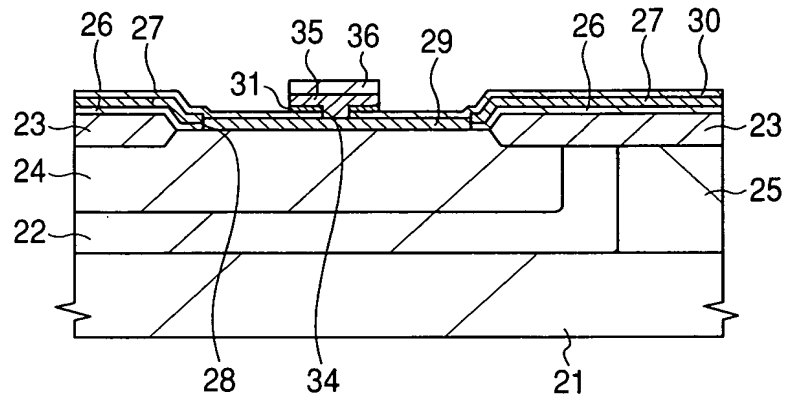


FIG. 28

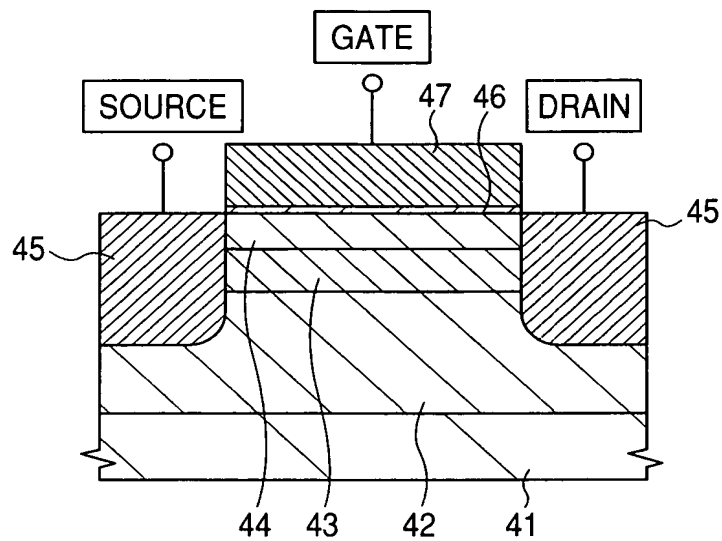


FIG. 29

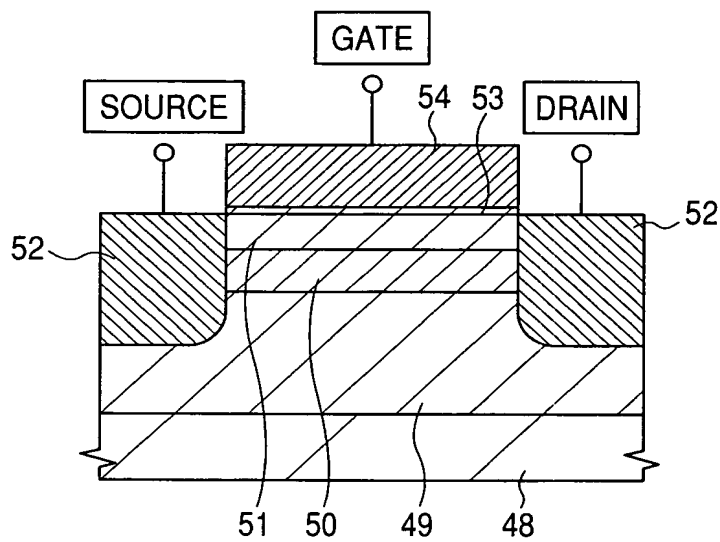


FIG. 30

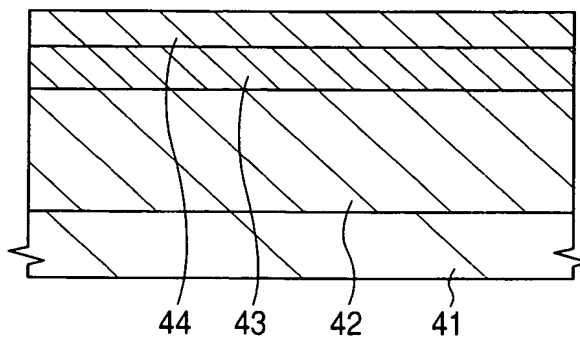


FIG. 31

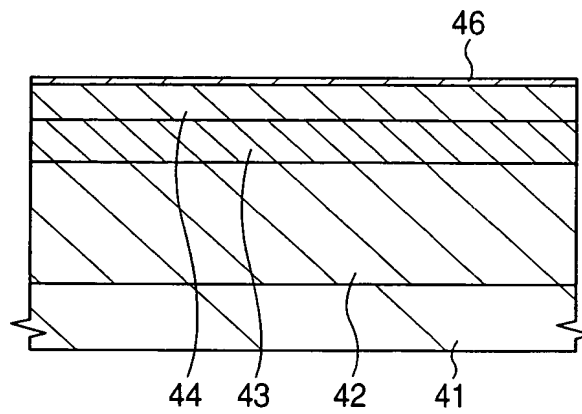


FIG. 32

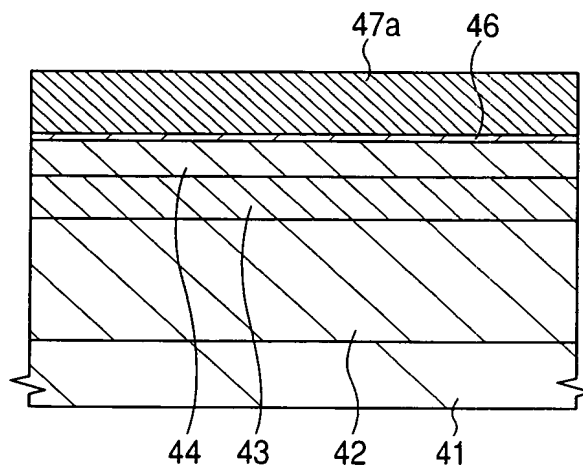


FIG. 33

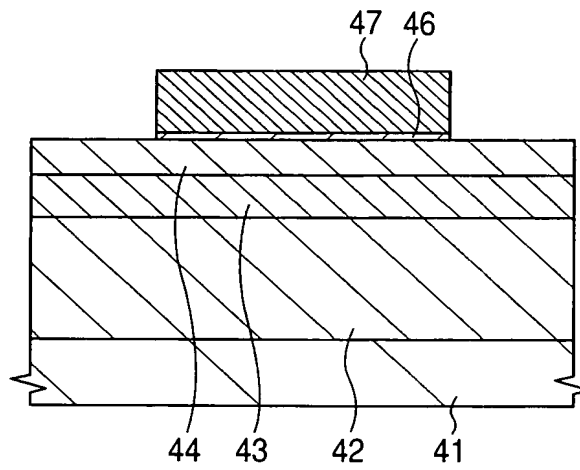


FIG. 34

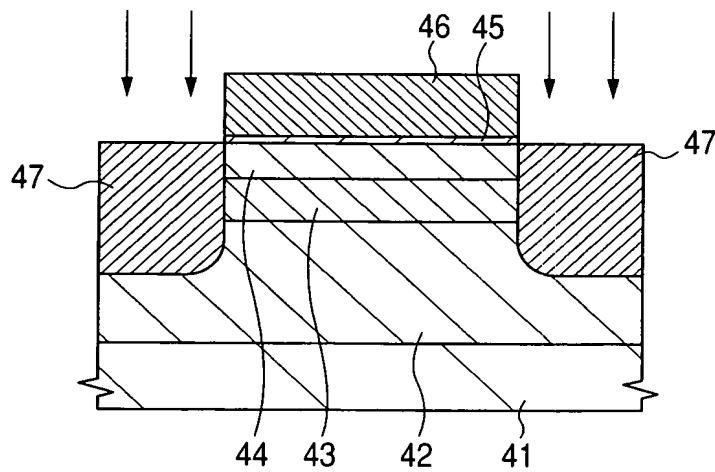


FIG. 35

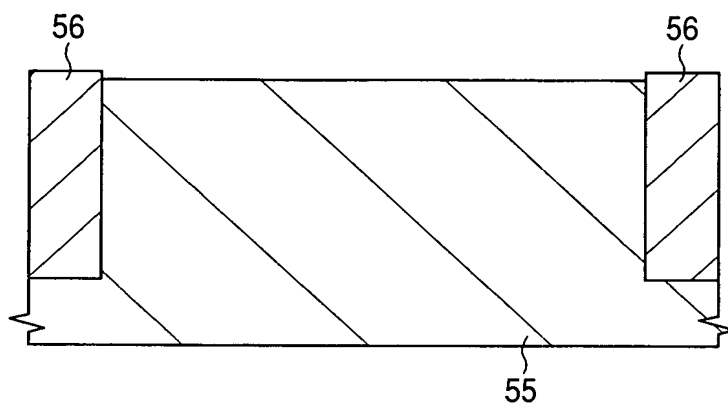


FIG. 36

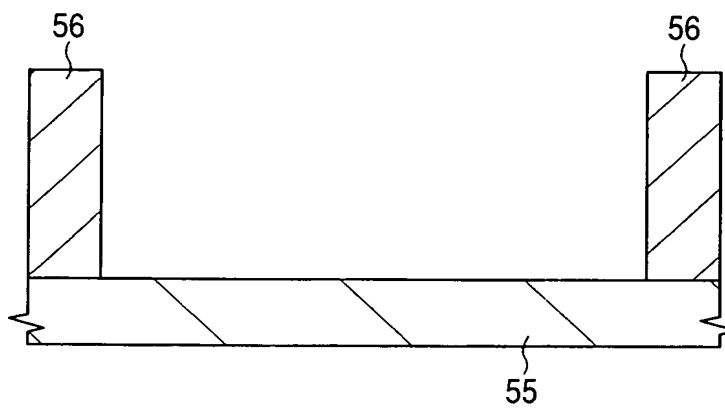


FIG. 37

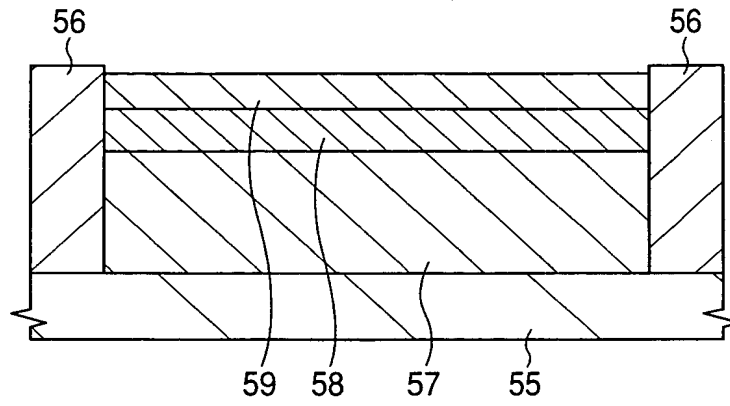


FIG. 38

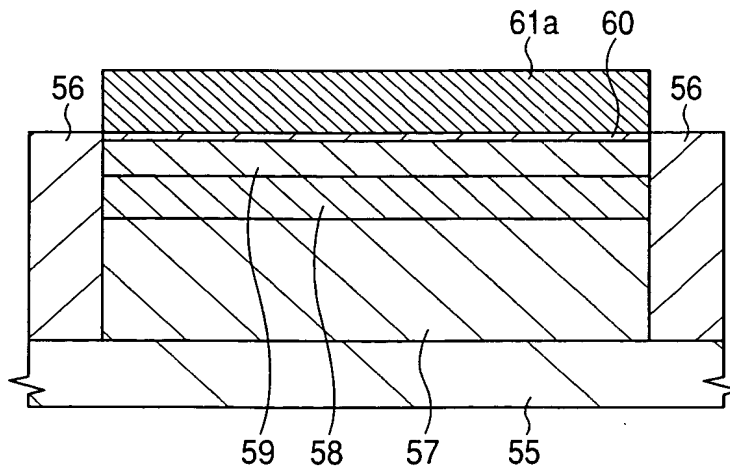


FIG. 39

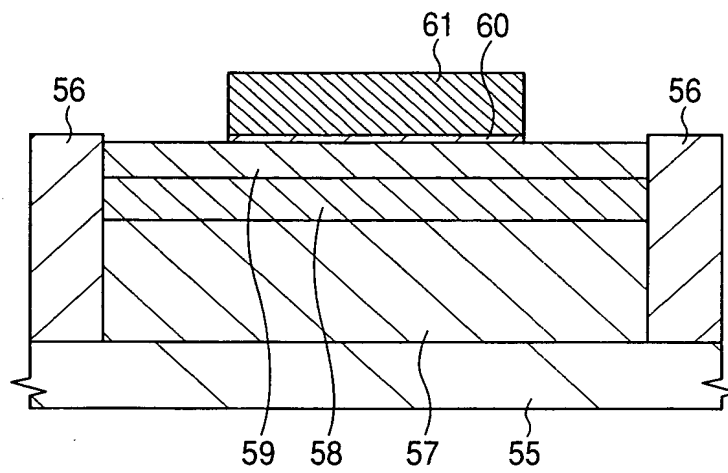


FIG. 40

